

Table 3 Regression results using a full seasonal specification (including an extended sample period)

Variable	Total revenues (\$million)			Average revenue per machine (\$/machine)		
	Estimate	SE*	p Value	Estimate	SE*	p Value
P_{law}	-6.487	1.663	<0.001	-1567.29	348.92	<0.001
Time	0.638	0.117	<0.001	85.36	22.28	<0.001
Time ²	-0.003	0.001	<0.001	-0.166	0.149	0.269
Machines	0.002	0.001	0.049	-2.728	0.284	<0.001
Income (\$trillion)	-11.581	18.263	0.528	9493.88	3535.54	0.009
Constant	30.618	26.563	0.252	1506.59	5143.92	0.770
Winter	-2.549	0.947	0.008	-614.83	242.35	0.013
Spring	2.326	0.829	0.006	892.90	235.64	<0.001
Summer	3.110	0.864	<0.001	908.06	228.97	<0.001
AR(1)	-0.333	0.058	<0.001	-0.304	0.064	<0.001
n	107			107		
R ²	0.818			0.743		

*Newey-West HAC standard errors.

total revenues ($R^2 = 0.846$) and -1583 ($p < 0.001$) for average revenue per machine ($R^2 = 0.777$).

Point estimates of the P_{law} coefficient suggest losses of approximately \$6.5 million per month (in inflation adjusted 2004 dollars). This figure represents a revenue loss of nearly 13% compared to the year preceding the smoking ban.

The stated purpose of Mandel *et al*¹ was to refute the contention of the gaming industry that smoking bans pose a threat to their business: "These results reject the argument that smoke-free laws hurt revenues from gaming". I find, however, that the smoke-free law in Delaware *did* affect revenue from gaming. This finding is statistically significant and quite robust. The public health benefits of smoke-free laws should be weighed against these (and other, similar) economic costs.

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Authors' response to M R Pakko

Pakko¹ takes issue with our paper "Smoke-free law did not affect revenue from gaming in Delaware,"^{2,3} arguing that our methods

were not sufficient because we failed to control for serial correlation and used a method of controlling for heteroskedasticity that did not meet his approval. We found these concerns odd, since in his original analysis claiming that there were negative effects of the Delaware law (published on the internet as a working paper⁴) he did not correct for either serial correlation or heteroskedasticity. Indeed, correcting Pakko's original model for heteroskedasticity led to the conclusion that the Delaware smoke-free law was *not* associated with a significant change in revenues.

Now, Pakko has produced yet another, more complex statistical model, which he uses to repeat his argument that the Delaware law had an adverse economic impact. Pakko does not present any statistical evidence that his new model is correctly specified, nor has he retracted his earlier model.

Pakko also ignores the explanation given by the Delaware racinos in official filings with the US Securities and Exchange Commission, which did not even suggest that the smoke-free law had any effect on its revenues. As we noted in our paper,² the 7%

decrease in revenue for its three casinos in Atlantic City and the management fees from Dover Downs was mainly due to inclement weather.⁵ The online summary of the filing⁵ did not mention the smoking restrictions as a reason revenue was down from the first quarter of the previous year.² In any event, as we showed in our paper,^{2,3} this reduction was not significantly significant—that is, it is within the usual random fluctuation in the revenue stream.

Finally, Pakko does not address the current reaction of the racinos to the smoke-free law. The racinos are not looking for ways to circumvent the law, as would be expected if the revenues were in fact suffering as badly as he suggests. Instead, Dover Downs is featuring their smoke-free environment in its advertising (fig 1). If the smoke-free environment were a drain on revenues, it seems odd that Dover Downs would advertise it.

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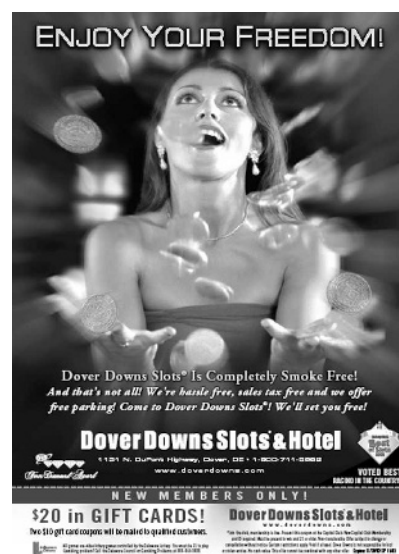
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Health meetings do not belong in smoky cities

Each year thousands of tobacco control workers meet at the US National Conference on Tobacco or Health. Eleven years ago, in Boston, the opening plenary of the first meeting was held in the Roxy Hotel. Participants at the session complained of the stench of stale tobacco smoke which lingered in the air from an event on the previous evening.

The most recent meeting, held in May 2005, took place in Chicago, where smoking is still allowed in the lobbies of convention hotels and adjacent bars and clubs. The same complaints heard years ago about Boston were expressed by this year's attendees. A group of delegates conducted research on the air quality of Chicago bars and restaurants in an effort to urge conference organisers and city leaders to adopt a smoke-free policy. Fifty people were trained in a conference session on conducting indoor air quality studies.

The training session taught participants to learn how to measure indoor air pollution levels in smoke contaminated and smoke-free settings using a TSI SidePak AM510

**Figure 1** Advert highlighting a racino's smoke-free environment.